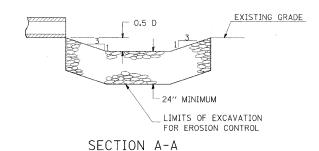
D= INSIDE DIAMETER OF PIPE CULVERT OR CLEAR HEIGHT OF BOX CULVERT

PLAN



## EARTH EXCAVATION FOR ENERGY DISSIPATOR

THIS WORK INVOLVES THE EXCAVATION OF EARTH AS SHOWN IN THE SKETCH TO THE LENGTH, WIDTH, AND DEPTH AS SPECIFIED. THE EARTH EXCAVATION WILL BE UTILIZED IN THE ROADWAY EMBANKMENT OR WASTED AS DIRECTED BY THE ENGINEER. THE EXCAVATION SHALL BE PERFORMED AT THE SAME TIME AS THE CULVERT OR DITCH IS CONSTRUCTED TO SERVE AS A TEMPORARY

EARTHWORK WILL BE CONSIDERED INCLUDED IN THE COST OF THE RIPRAP.

ENERGY DISSIPATOR IS TO BE CONSTRUCTED AT THE LOCATION INDICATED ON THE PLAN AND PROFILE SHEETS.

### RIPRAP FOR ENERGY DISSIPATOR

RIPRAP FOR ENERGY DISSIPATOR SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 281 OF THE STANDARD SPECIFICATIONS EXCEPT AS REVISED HEREIN.

THE LENGTH, WIDTH, AND DEPTH FOR RIPRAP PLACEMENT SHALL BE AS SPECIFIED IN THESE DETAILS UNLESS OTHERWISE SPECIFIED IN

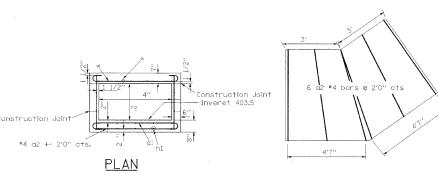
THE RIPRAP FOR THE ENERGY DISSIPATOR SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR STONE DUMPED RIPRAP.

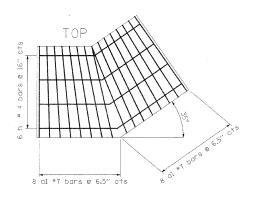
THE STONE DUMPED RIPRAP SHALL CONFORM TO THE QUALITY AND GRADATION REQUIREMENTS OF STONE RIPRAP, CLASS A4.

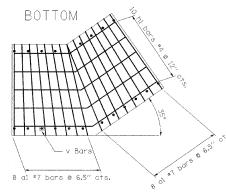
BEDDING MATERIAL AS SPECIFIED IN SECTION 281 OF THE STANDARD SPECIFICATIONS WILL NOT BE REQUIRED.



## **DETAILS OF COLLAR, SPECIAL,**







CONTRACT NO. 98823

COUNTY TOTAL SHEET SHEETS NO SECTION \*\*\* 304 165 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

\* FAU 9481, FAS 2887 (IL 37) \*\* (12,12X),RS-3;12B-1,12B1-1 \*\*\* FRANKLIN AND WILLIAMSON

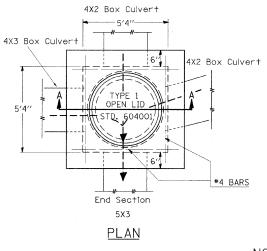
BOX CULVERT MAY BE PRECAST OR CAST IN PLACE, SHOP PLANS SHALL BE SUBMITTED IN ACCORDANCE WITH REQUIREMENTS OF SECTION 504 OF THE STANDARD SPECIFICATION.

MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI.

### BILL OF MATERIAL

	No.	Size	Length	Shape
$\sigma_I$	BI2	#7	6′ 4"	
02	6	#4	4'-6"	
d				
h	6	#4	VARIES	
$h_{I}$	10	#4	VARIES	***************************************
ħ2				
h <sub>3</sub>				
h <sub>4</sub>				
h <sub>5</sub>				
hs .				
h <sub>7</sub>	<u> </u>			
hs				
S				
51				-
~~~~				
V	20	#4	3'11"	
V3				
Concrete Box Culverts			Cu. Yd.	2.5
Reinforcement Bars			Pound	665
3 <sub>4</sub> " Expansion boits			Each	0
4 - 1	701101011	20110	L. 0011	

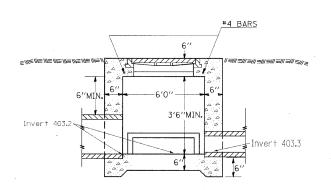
# **DETAILS OF MANHOLES, SPECIAL, TYPE 1**



NOTE:

CLASS SI CONCRETE SHALL BE USED THROUGHOUT. MANHOLES SHALL BE PAID FOR AT CONTRACT UNIT PRICE EACH MANHOLE, SPECIAL, TYPE 1 WHICH PRICE SHALL INCLUDE CAST IRON FRAME, SPECIAL, TYPE 1, WITH TYPE 1 OPEN LID, AND REINFORCEMENT BARS.

MINIMUM CONCRETE STRENGTH SHALL BE 5000 PSI.



SECTION A-A

TO BE USED: STA 399+98

> MODIFIED STD. 9-4

REVISIONS ILLINOIS DEPARTMENT OF TRANSPORTATION **DETAILS:** 

> **ENERGY DISSIPATOR:** MANHOLES, SPECIAL, TYPE 1; **COLLAR, SPECIAL**

SCALE: VERT. NO SCALE

CHECKED BY